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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,744	04/20/2004	Tracy E. Grim	GRIM3001	5476

23364 7590 02/20/2008  
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EXAMINER
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PHAM, HUONG Q

ART UNIT	PAPER NUMBER
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3772

MAIL DATE	DELIVERY MODE
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02/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/828,744

Applicant(s)

GRIM ET AL.

Examiner

Huong Q. Pham

Art Unit

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6, 9-11, 14, 15, 18, 20-29 and 40-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6, 9-11, 14-15, 18, 20-29, 40-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 7/3/2007 has been entered.

### ***Claim Objections***

Claims 11 and 23 are objected to because: "said splint" ( line 3, claim 11) and " the splint" ( line 2, claim 23) lack proper antecedent basis.

It appears that the above mentioned phrases should be changed to " said splint or support" to be consistent with how the structure was previously claimed or referred to

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11, 14, 22, 25, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 11, “ the web space between the thumb and forefinger” lacks proper antecedent basis . It is unclear what structure is this “ the web space between the thumb and forefinger” .

As for claims 14 and 25, the meaning of “ exo-skeletal “ is unclear.

As for claim 22, it is unclear what structure is the recited “laterally extending extensions”

As for claim 44, the meaning of “UBL” is unclear.

### **Claim Rejections - 35 USC § 103**

**The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9, 14-15, 18, 20-22, 25-27, 29, 40-42,44, and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcey (6,106,492) in view of Parker et al ( 5,755,678) and Ferguson et al ( 6,042,557).

Regarding claim 6, Darcey discloses a splint comprising: an elongated blank (14) impregnated with hardenable material, primary tacking arrangements (26) comprising at least one strip of material having opposed end portions ( figure 8), hook type patch 32 secured at one end portion, and secondary holding arrangements 34 for functionally securing the blank in place (Figure 11) .

Darcey does not teach that the strip 26 is made of non-woven material , and the strip 26 of Darcey does not show to have hook type patch secured at both end portions, and Darcey does not specify that the strips 26 are non-rectangular in shape.

Parker et al teaches elastic primary tacking arrangements 124 which is made of non-woven stretchable material ( figure 18) for allowing adjustability of the length of the elastic primary tacking arrangements 124 .

Ferguson et al teaches an orthopedic splint with a primary tacking arrangements 26 comprising at least one strip , non-rectangular in shape, having opposed end portions , wherein hook type patches 38 secured on the opposed end portions ( figure 9) for allowing adjustability of the positions of the strips 26 along the length of the splint.

In view of these teachings of Parker et al and Ferguson et al , it would have been obvious to one skilled in the art at the time the invention was made to modify and provide the splint disclosed by Darcey with primary tacking arrangements strips which are made of stretchable non-woven material ( as taught by Parker et al ) ; and which are having non-rectangular shape with opposed end portions, wherein the opposed end portions include hook type patches secured on opposed end portions in order to allow adjustability of the locations of the primary tacking arrangement strips relative to and along the length of the splint . Note that this type of primary tacking arrangement is very well-known in the art.

Note that providing the teaching of Parker et al of using an elastic "stretchable" strip for the primary tacking arrangement for allowing adjustability of the length of the elastic primary tacking arrangements , it is obvious that the choice of the type

and strength of the stretchable material for the stretchable strip: for example, "tearable", "low-profile", "insufficient strength", etc.... to rigidly immobilize the splint for long term use, is well within the realm of one ordinary skill in the art, and does not provide any unobvious result, and therefore is not patentable over prior art.

Regarding claim 9, note the comments relative to claim 6 for the teaching of Ferguson et al, and note figure 9 of Ferguson et al.

Regarding claim 14, the secondary holding arrangements of Darcey comprise structure 34 overlying the blank.

Regarding claims 15, 18, and 29, note the comments relative to claim 6 for the teaching of Ferguson et al, and note that Ferguson et al teaches a primary tacking arrangements strip 26 ( figure 9) which is non-rectangular in shape and wherein the strip is removable and repositionable.

Regarding claim 20, the blank of Darcey has a padding layer 20 ( figure 6) on at least one side .

Regarding claim 21, the secondary holding arrangement 34 of Darcey includes a resilient, flexible, stretchable tape ( figure 11).

As regards claim 22, note the comments relative to claim 6 for the teachings of Parker et al and Ferguson et al , and note that the blank of Parker et al ( figure 18) and the blank of Ferguson et al ( figures 1, 3 and 6) each has a non-rectangular shape, and each has lateral extending extensions ( figure 18) . In view of these teachings of Parker et al and Ferguson et al

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, it would have been obvious to one skilled in the art at the time the invention was made to modify and provide the splint disclosed by Darcey with a non -rectangular shape which has lateral extending extensions in order to fit and support the specific portion of the anatomy of a user.

As for claim 25, note that the blank of Ferguson et al has a cover formed of a loop receivable material 40.

As for claims 26, 27, note the comments relative to the claims 6 and 22 above.

As for claims 40- 42, 44, 47, note the comments to all the claims above for the combination teachings of Darcey , Parker et al, and Ferguson et al. Note the inner padding layer 20 ( figure 6 of Darcey), and note that the blank of Ferguson et al ( figure 9) is covered with loops receivable material .

Although Darcey does not disclose a blank that is in roll form, note that Parker et al discloses a splint comprising: an elongate blank (10) in roll form (Figure 1). Parker et al specifies that the splint be in roll form so that it can be dispensed in used-determined lengths suitable for any given medical use. In view of this teaching of Parker et al, it would have been obvious to one skilled in the art at the time the invention was made to provide the splint disclosed by Darcey with the blank is in roll form, so that it can be dispensed in used-determined lengths suitable for any given medical use.

As for claim 46, note that the layers 24A-F of Darcey are multiple layers of casting material.

Claims 10, 11, 28, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcey (6,106,492) in view of Parker et al ( 5,755,678) and Ferguson et al ( 6,042,557) and further in view of Grim et al ( 6,139,513).

Note the comments above for the combination teachings of Darcey ,Parker et al , and Ferguson et al.

Darcey does not disclose a splint wherein the blank is formed of double knit spacer material.

As for claims 10, 28, 43, and 45, Grim et al. discloses a splint wherein the blank is formed of double knit spacer material (28). Grim et al. specifies that the use of double knit type material improve the control of the flow of water to the curable resin and provide desired strength for the product. In view of this teaching of Grim et al, it would have been obvious to one skilled in the art at the time the invention was made to provide the splint disclosed by Darcey with a blank formed of double knit spacer type material to improve the control of the flow of water to the curable resin and provide desired strength for the product.

As for claim 11, note figure 7 of Grim et al, and note that the provision for this recited structure for a splint is well known in the art.



Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcey in view of in view of Parker et al ( 5,755,678) and Ferguson et al ( 6,042,557), and further in view of Schlogel ( 5,195,944).

Note the comments above for the combination teachings of Darcey ,Parker et al , and Ferguson et al.

Darcey does not disclose a splint with spits along the length of the splint, and does not teach an anti-flexion strap.

As for claims 23-24, Schlogel teaches a splint having slits 10, 21 along the length of the splint , and teaches anti-flexion strap 20 ( figure 2) .

In view of this teaching of Schlogel, it would have been obvious to one skilled in the art at the time the invention was made to provide the splint disclosed by Darcey with slits along the length of the splint to reduce bulk after molding , and with an anti-flexion strap 20 for increase support.

### ***Response to Arguments***

Applicant's arguments filed on 7/3/2007 with respect to the claims have been considered but are not persuasive.. Note the comments relative to the claims above.

Applicant argues that one of ordinary skill in the art would not be motivated by any one of Darcey, Parker , and Ferguson to provide a splint or support with the primary tacking arrangement , and that “ a heavy elastic strap is not a strip that is stretchable, tearable, low profile, and of insufficient strength “....

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As discuss above, providing the teaching of Parker et al of using an elastic "stretchable" strip for the primary tacking arrangement, it is obvious that the choice of the type and strength of material for the stretchable strip, : for example, "tearable", "low-profile", "insufficient strength", etc....., to rigidly immobilize the splint for long term use, is well within the realm of one ordinary skill in the art, and does not provide any unobvious result, and therefore is not patentable over prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (571) 272-4980. The examiner can normally be reached on 8:45 AM - 5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on ( 571) 272 - 4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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January 29, 2008

/Huong Q. Pham/

Examiner, Art Unit 3772

  
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2/19/08